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IN THE UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

THE BOEING COMPANY,

Plaintiff,

v.

LEONARD ROBINSON, in his official capacity as the Acting Director of the California Department of Toxic Substances Control,

Defendant.

Case No. CV 10-04839-JFW (MANx)

DEFENDANT'S STATEMENT OF GENUINE ISSUES OF MATERIAL FACT

Hearing Date: April 11, 2011
Time: 1:30 p.m.
Court: Hon. John F. Walter

Action Filed: 11/13/2009

Plaintiff's Asserted Uncontroverted Fact	**Defendant's Uncontroverted Fact and Supporting Evidence**
1. The Santa Susana Field Laboratory ("SSFL") is an approximately 2,850-acre former research and development facility in the Simi Hills in Ventura	**Not disputed.**

County, California.	
2. Boeing has occupied or owned property at SSFL since the late 1940s.	**Not disputed.**
3. Throughout the years, SSFL has been used predominantly to perform work on behalf of the federal government.	**Not disputed.**
4. The federal government has owned and leased property at SSFL since the early 1950s.	**Not disputed.**
5. Today, Boeing owns approximately 2,398 acres of SSFL.	**Not disputed.**
6. The federal government currently owns approximately 452 acres of SSFL, which it currently administers through the National Aeronautics and Space Administration ("NASA") and previously administered through the Air Force.	**Not disputed.**
7. The federal government also leases from	**Not disputed.**

Boeing approximately 90 acres of SSFL, which the United States Department of energy ("DOE") administers.	
8. The federal government and Boeing used SSFL for more than sixty years to research, develop, and test many pioneering technologies relating to nuclear energy, defense, and space exploration for the United States.	**Not disputed.**
9. From the 1950s to the 1980s, acting pursuant to its exclusive authority under the Atomic Energy Act of 1954 ("AEA"), 42 U.S.C. §§2911, *et seq.*, DOE conducted a federal program at SSFL to research the peacetime use of nuclear energy.	**Not disputed.**
10. Boeing carried out the DOE nuclear-research program at SSFL in its	**Not disputed.**

capacity as DOE prime contractor as authorized by AEA.	
11. Boeing set aside a portion of SSFl, now known as "Area IV," for the DOE nuclear –research activity.	**Not disputed.**
12. DOE operations in Area IV of SSFL were conducted in a DOE-controlled complex known as the Engineering Technology Center ("ETEC").	**Not disputed.**
13. At its height, ETEC spanned more than 200 buildings and facilities, many of which were constructed and owned by DOE.	**Not disputed.**
14. The vast majority of radiological activity at SSFL was conducted for or on behalf of DOE.	**Not disputed.**
15. Among other things, DOE owned and operated at SSFL sixteen experimental	**Not disputed.**

nuclear-reactor facilities or critical test facilities (low-powered reactors).	
16. Some of the DOE nuclear reactor and critical test facilities at SSFL were used for researching electricity production, and others were used to develop energy sources for the federal space program.	**Not disputed.**
17. One DOE reactor—the Sodium Reactor Experiment—alone generated roughly 90 percent of the total contained radioactivity at SSFL.	**Not disputed.**
18. The Sodium Reactor Experiment experienced a significant core damage accident at SSFL during DOE operations in 1959.	**Not disputed.**
19. DOE also sponsored a variety of nuclear reactor support activities at SSFL, including nuclear-fuel manufacturing, as well as	**Not disputed.**

the decladding of spent irradiated nuclear fuel in the SSFL Hot Laboratory.	
20. The federal nuclear research activities performed for or on behalf of DOE resulted in radiological contamination—including byproduct, source, and special nuclear material—in the soil, groundwater, and bedrock at SSFL.	**Not disputed.**
21. The vast majority, if not all, of the radiological contamination at SSFL resulted from DOE operations.	**Not disputed.**
22. Radiological contamination, although concentrated in Area IV, has also been detected in other areas of SSFL. That contamination is likely the result of federal activities.	**Not disputed.**
23. During the same time period that federal operations were ongoing,	**Not disputed.**

Boeing conducted a comparatively small amount of radiological work in Area IV of SSFL in a private commercial capacity, in the same buildings or areas where federal work occurred and involving the same radioisotopes as federal activity.	
24. Boeing operated one nuclear reactor and once critical test facility in a private commercial capacity, activities which were federally licensed by the AEC and its successor, the Nuclear Regulatory Commission.	**Not disputed.**
25. Boeing did an even smaller amount of state-licensed commercial radiological work at SSFL, including the manufacture and repackaging of sealed sources and routine industrial activity using radiological materials.	**Not disputed.**

26. The routine industrial activity Boeing performed at SSFL included the use of sealed x-radiography sources and sealed calibration sources; use of gas chromatographs that contained sealed radiological sources; use of sealed destaticisors; possession of smoke detectors and sealed self-powered exit signs; possession of equipment used in "in-service inspection" activities; and use of sealed level, depth, thickness, and density gauges.	**Not disputed.**
27. Because of both its far smaller scale and nature—much of the activity involved the use of "sealed sources" unlikely to leak—the private commercial activity at SSFL was much less likely to result in contamination than the	**Not disputed.**

federal activity.	
28. DTSC cannot identify any radiological contamination at SSFL resulting from private commercial activity.	**Not disputed.**
29. Because the private commercial radiological activity at SSFL occurred at the same time and in the same buildings as federal radiological activity and involved the same radioisotopes, to the extent there is any privately generated radiological contamination at SSFL, such contamination would be indistinguishable from and/or inextricably intermixed with radiological contamination resulting from federal activity.	**Not disputed.**
30. Intermixing of federal radiological contamination with any private radiological contamination would prevent any private	**Not disputed.**

contamination from being remediated separately from the federal contamination.	
31. SSL began as a test site for the military after World War II when North American Aviation, a Boeing precursor, received a contract from the Air Force to develop the Navaho guided missile system. SSFL was established in 1947 to test that system and was used to test ballistic missile systems under contract to the military throughout the Cold War.	**Not disputed.**
32. The Air Force and NASA, through Boeing as a prime contactor, conducted liquid-propellant rocket-engine tests at SSFL from the 1950s to 2006.	**Not disputed.**
33. Many of the rocket engines tested on behalf of the Air Force and NASA powered major American expeditions into space,	**Not disputed.**

including the Apollo missions and the Moon landing.	
34. To support the federal rocket-testing work, Boeing, under federal contract, constructed six rocket-test stand areas.	**Not disputed.**
35. The six federal test stand areas, located both on federally owned and Boeing-owned portions of SSFL, were operated under a series of federal facilities contracts.	**Not disputed.**
36. Boeing tested rocket components and fuel in laboratories and other SSFL facilities in support of the federal rocket-testing programs.	**Not disputed.**
37. The soil, groundwater, and bedrock at SSFL became contaminated with chemicals as a result of federal rocket-testing and support operations.	**Not disputed.**
38. The chemical	**Not disputed.**

contamination at SSFL resulting from federal activities is present in all operational areas of the site and is not limited to the areas currently owned, controlled, or leased by the federal government.	
39. Significant chemical contamination at the SSFL resulted from the use of trichloroethylene ("TCE") as a solvent to clean liquid-propellant engines and rocket test stands between tests for or on behalf of the federal government.	**Not disputed.**
40. More than 500,000 gallons of TCE were released into the ground at SSFL as a result of federal rocket-testing activities performed for the military or NASA.	**Not disputed.**
41. Ninety-seven percent of the total TCE release at SSFL occurred before the installation of TCE	**Not disputed.**

containment systems, which, beginning in 1961, were used to prevent the release of TCE directly.	
42. The use of TCE in conjunction with liquid-propellant engine testing was phased out at SSFL altogether in the 1990s.	**Not disputed.**
43. The overwhelming majority of rocket-testing activity at SSFL was performed for or on behalf of the federal government, and any private rocket testing would have occurred well after the installation of TCE containment systems in 1961.	**Not disputed.**
44. Any TCE contamination at SSFL that might have resulted from private commercial rocket testing would be de minimis compared to the federal TCE contamination.	**Not disputed.**
45. DTSC has been unable to identify any TCE	**Not disputed.**

contamination resulting from non-federal activity.	
46. To the extent any TCE contamination had resulted from private commercial activity, it would be indistinguishable from and/or inextricably intermixed with chemical contamination resulting from federal rocket testing.	**Not disputed.**
47. Any private TCE contamination could not be identified and remediated separately from the federal TCE contamination.	**Not disputed.**
48. Federal rocket-testing, energy research, and other activities at SSFL resulted in chemical contamination in addition to TCE, including perchlorate, heavy metal, PCB, dioxin, volatile organic compound, and semivolatile organic compound contamination.	**Not disputed.**
49. The vast majority of perchlorate, heavy metal,	**Not disputed.**

PCB, dioxin, volatile organic compound, and semivolatile organic compound contamination resulted from federal activities, and any chemical contamination resulting from private commercial operations would be exceedingly small in comparison.	
50. Defendant California Department of Toxic Substances Control ("DTSC") cannot identify any chemical contamination that did not result from federal activity.	**Not disputed.**
51. Because any commercial activity at SSFL was performed in the same areas and used the same chemicals as federal activity, even if there were private chemical contamination at SSFL, it would be indistinguishable from and/or inextricably	**Not disputed.**

intermixed with chemical contamination resulting from federal activity, which would prevent any private contamination from being remediated separately from the federal contamination.	
52. Boeing is actively conducting the cleanup at SSFL on behalf of DOE and NASA in its capacity as a federal contractor, pays a portion of the cleanup costs, and will bear the portion of the cleanup costs not paid by or recovered from the federal government.	**Not disputed.**
53. Before SB 990, DOE supervised the cleanup of the radiological contamination under federal law, and DTSC supervised the cleanup of the chemical contamination under generally applicable State law.	**Not disputed.**
54. Before SB 990, DOE had regulated the cleanup of	**Disputed.** **<u>Objection:</u> Defendant disputes asserted**

radiological material in Area IV of SSFL pursuant to its exclusive AEA authority.	**Statement of Fact No. 54, to the effect that the DOE cleanup at SSFL was pursuant to its "exclusive" AEA authority because it is a legal conclusion. The evidence cited in support of this legal conclusion is the following:** • Greger Dep. [39:8] – [39:14] ("Q. … Is it correct that the [California] Department of Public Health as a matter of fact prior to the enactment of SB 990 did not assert regulatory jurisdiction over any of the volume contamination at SSFL? A. I believe that's correct, because that material was DOE material and if it's DOE material, we do not have jurisdiction."). • Malinowski Dep. [163:25] – [164:11] ("… A. … DOE is basically the lead federal agency for their activities and for those that are related to the radioactive cleanup. Q. DOE takes the lead of cleaning up radiological contamination at DOE sites? A. That is correct."); • Rutherford Decl. ¶37; • Ex. 9 to Rutherford Decl., *Envtl. Assessment for the Cleanup and Closure of the Energy Tech. Eng'g Ctr.* at 2-2 to 2-3 (DOE 2003).
55. Under its AEA authority, DOE selects and applies cleanup and site-	**Not disputed.**

closure procedures consistent with the comprehensive health, safety, and environmental program that governs DOE's nuclear facilities nationwide.	
56. The radiological contamination in Area IV of SSFL has been extensively sampled and analyzed, and the principal sources, types, and locations of contamination have been identified.	**Not disputed.**
57. Characterization of the radiological contamination at SSFL has been ongoing since the 1970s in connection with the decontamination and decommissioning of radiological facilities in Area IV.	**Not disputed.**
58. DOE-sponsored radiological characterization work at SSFL has also included an Area IV-wide	**Not disputed.**

radiological survey conducted in 1988, a second Area IV-wide radiological survey in 1995, and numerous characterization and final status surveys associated with the footprints of former radiological facilities.	
59. Thousands of soil, bedrock, and groundwater samples have been taken in Area IV.	**Not disputed.**
60. Many thousands of pages of analysis have been prepared and a large quantity of historical and technical documents have been reviewed and collected in support of the radiological characterization studies at SSFL.	**Not disputed.**
61. In 1996, DOE approved procedures governing the radiological cleanup of Area IV.	**Not disputed.**
62. Under the DOE-approved procedures	**Not disputed.**

governing the radiological cleanup of Area IV, Area IV would have been cleaned up to a level such that future users of the site for suburban residential, recreational, or industrial purposes would have been exposed to a dose of no more than 15 millirem of radiation per year. These procedures did not consider an agricultural future land-use assumption to be appropriate for SSFL.	
63. The 15 millirem/year standard for radiological cleanup is exceedingly conservation: It is more protective than the standard normally applied to decommissioning of commercial facilities by the NRC, and it would have resulted in a lower dose of radiation per year than four cross-country round trips on an airplane.	**Not disputed.**

64. The 15 millirem/yer standard for radiological cleanup fully protects human health and the environment.	**Not disputed.**
65. Before SB 990, the cleanup of the non-radiological contamination at SSFL had been supervised by DTSC pursuant to the State's generally applicable hazardous waste management laws.	**Not disputed.**
66. The chemical contamination at SSFL has been extensively sampled and analyzed, and the principal sources, types, and locations of contamination have been identified.	**Not disputed.**
67. Chemical characterization at SSFL has been ongoing for more than 25 years and has involved the taking of more than 35,000 soil, bedrock, and groundwater samples; the	**Not disputed.**

preparation of more than 100,000 pages of analysis, including eleven RCRA Facility Investigation reports submitted to DTSC, which detail the sources and extent of chemical contamination throughout the site; and submission of approximately 800,000 pages of historical and technical documents in support of these studies.	
68. In August 2007, pursuant to generally applicable State law, DTSC, Boeing, DOE, and NASA entered into a Consent Order for Corrective Action, which governed the remediation of chemical contamination at SSFL, but did not include radiological cleanup.	**Not disputed.**
69. The 2007 Consent Order for Corrective Action required that chemical contamination be cleaned up to a level determined on the	**Not disputed.**

assumption that the site would be used for suburban residential purposes.	
70. Applying a suburban-residential cleanup standard at SSFL is conservative, considering that in October 2007, Boeing publicly committed to preserve the SSFL site for use as open space parkland upon completion of such a cleanup.	**Not disputed.**
71. DTSC's 30(b)(6) witnesses have admitted that the pre-SB 990 approach to chemical cleanup was fully protective of human health and the environment at SSFL.	**Not disputed.**
72. The NASA Administrative Order on Consent (AOC) is contingent on the results of the analyses required under the California Environmental Quality Act ("CEQA"), Cal. Public	**Disputed.** **<u>Objection</u>: Defendant objects to asserted Statement Fact # 72, because it mischaracterizes the testimony of the witness. This testimony subject to this objection is set forth below.** Malinowski Dep. [208:14] – [211:5] **Q. Assuming that as a result of the change from pre-SB 990 to post-SB 990 it's necessary to truck**

Resources Code §21000 *et seq.*, and NEPA.	**additional soil away from the site, do you have a view as to whether the risk to public health is increased or reduced by SB 990 given the risk of traffic, mortality, diesel particulates, things like that?** **MR. ROBINSON: Objection; incomplete hypothetical. Calls for speculation. Lack of foundation.** **THE WITNESS: And I don't know that the trucking is the only option for that effort. So I don't know that that's the only thing. But I don't have any firm estimate of what the additional risk would be if it was all trucked or exactly how that would be managed. But that is one of the things that would have to be evaluated.** **Q. BY MR. MOSS: In a pre-SB 990 world, that's one of the types of things that you would evaluate in determining the cleanup standard; is that right?** A. In the pre-SB 990, yes. That's correct. But even in the post-SB 990, there still would have to be - - there still is going to have to be an assessment of those, whether it's in a CEQA document or wherever it is. **Q. Will that occur with respect to the AOCs?** A. Yes. **Q. And is there a need to – strike that. If in conducting the CEQA analysis, DTSC were to determine that the risks of a cleanup to background to public health were actually greater as a result of increased trucking and other activity than not cleanup to background, would the DTSC in fact relieve DOE and NASA of the requirement of a cleanup to background?** **MR. ROBINSON: Objection; calls for speculation.** **THE WITNESS: I don't know what our determination would be at that point.** **Q. BY MR. MOSS: But I assume that for purposes of doing the CEQA analysis, you would have to at least be open, would you not, to potentially changing your mind and deciding that a cleanup to background actually is not in the interest of the public; is that right?** **MR. ROBINSON: Objection; argumentative.** **THE WITNESS: Again, I think we'd have to put that into the CEQA document, put the CEQA**

	document out for public comment and view what kind of comments we get in general, yes. **Q. BY Mr. MOSS: Yes, you would have to be open to reconsider; is that right?** A. We would evaluate that, yes. **Q. And is the same true with respect to the conducting of an EIS under NEPA?** A. To the best of my understanding, yes. **Q. So if the result of the EIS was that public health was not served by a cleanup to background, then there would be a need to revisit the AOCs at that time?** **MR. ROBINSON: Objection; calls for speculation.** **THE WITNESS: I think the EIS is going to be tied to the EIR, so I think it's all going to fit together. It's all got to come together.** **Q. BY MR. MOSS: I guess my point is just that in order to conduct those processes in good faith, the DTSC would have to actually be open to actually changing its mind, because otherwise there would be no reason to go through the process, right?** A. I think that that's correct. +
73. SB 990 prescribes cleanup rules that apply only to SSFL and to no other site in the State.	**Not disputed.**
74. SB 990 differs from the normal process for the cleanup of a contaminated site because it mandates the land-use assumption to be used in the risk assessment at SSFL regardless of the	**Not disputed.**

actual likely future use of the site.	
75. Risk assessments determine the risk posed to human health and the environment by the contamination remaining at a site upon completion of a cleanup.	**Not disputed.**
76. Under the normal process, the reasonably foreseeable land-use assumption for a contaminated site is a key component in a risk assessment and the principal factor in determining the ultimate cleanup standard.	**Not disputed.**
77. Each future land-use scenario—such as agricultural, suburban-residential, or open space—assumes a degree of exposure to residual contamination to a future user of the land through certain "pathways," such as inhalation of air, ingestion	**Not disputed.**

of water, and ingestion of food grown or raised on the site.	
78. The greater the assumed exposure at a site, the more stringent the ultimate cleanup standard must be.	**Not disputed.**
79. A site likely to be used as a substance farm in the future—the scenario which assumes the greatest exposure—would be required to be clean up to the most stringent standard.	**Not disputed.**
80. Under the normal process—including at SSFL before SB 990—the reasonably foreseeable future use of a site is determined by considering a number of site-specific factors, including the current use of the land, county general plans, topography and natural resources, institutional controls, cultural resources, and	**Not disputed.**

endangered species.	
81. As a practical matter, the counterfactual land-use assumption mandated by SB 990 would require Boeing and the federal government to clean up SSFL to a point that the land could be used for subsistence farming—where full-time residents would obtain all of their food from the site.	**Not disputed.**
82. No one—not even DTSC—has suggested that SSFL will actually be used as a farm any time in the future, and there is no factual basis for such a conclusion.	**Not disputed.**
83. SSFL is currently used for industrial purposes.	**Not disputed.**
84. Boeing has publicly committed permanently to restrict and dedicate its property at the SSFL site to public use open space upon completion of a cleanup to suburban-residential	**Not disputed.**

standards.	
85. SSFL is located in an area designated for open space used by local land-use authorities under the Ventura County General Plan.	**Not disputed**.
86. Given the challenges that SSFL's geology poses, DTSC has conceded that remediating SSFL groundwater to SB 990 standards could take as long as 50,000 years.	**Not disputed.**
87. Improper disposal of radioactive sodium from the DOE-owned and operated Sodium Reactor Experiment is the most likely sources of the radiological contamination detected in the "sodium burn pit."	**Not disputed.**
88. DOE sponsored plutonium and enriched uranium nuclear-fuel manufacturing, which Boeing performed on behalf of DOE.	**Not disputed.**

89. DOE sponsored decladding of spent irradiated nuclear fuel in the Hot Laboratory, which Boeing performed on behalf of DOE.	**Not disputed.**
90. The Hot Laboratory "was actually used over the years almost exclusively for DOE work," and DOE has conducted the cleanup of this facility.	**Not disputed.**
91. DOE operations caused a number of sodium fires at the Hot Laboratory throughout the years.	**Not disputed.**
92. Four notable accidents, including the accident involving the Sodium Reactor Experiment, occurred during the operation of DOE reactors in Area IV.	**Not disputed.**
93. The California Department of Public Health—not DTSC, the agency that administers SB 990—is the State agency	**Disputed.** **<u>Objection</u>: Defendant disputes asserted Statement of Fact # 93 because the entity that has licensing authority from NRC is a legal conclusion.**

that has been designated to assume licensing authority from the NRC.	• Greger Dep. [22:6] – [23:7] • Brausch Dep. [154:18] – [160:5]
94. The NRC does not engage in any oversight of DTSC.	**Not disputed.**
95. At SSFL, the operation of nuclear reactors and the manufacture of nuclear fuel was, in fact, regulated either by DOE or by the NRS; Boeing never held State licenses authorizing such activity.	**Not disputed.**
96. SB 990 singles out Boeing, DOE, NASA, and the SSFL site for a substantially more stringent cleanup scheme than that which applies elsewhere in the State.	**Not disputed.**
97. Under SB 990 mandated land-use assumption, one radionuclide of concern, cesium-137, would be cleaned up to levels of 50	**Not disputed.**

times more stringent than the suburban-residential standard to which Boeing had agreed pre-SB 990, and 2000 times more stringent than would what be required under SSFL's reasonably foreseeable use as open space.	
98. There is nothing unique about the SSFL site or its contamination [sic] justifies the disparate treatment mandated by SB 990.	**Disputed.** **Objection: Boeing's Asserted Uncontroverted Fact No. 98 lacks the proper foundation because the conclusions about the "uniqueness" of the SSFL site, or the lack thereof, lack the necessary foundation (*i.e.*, a complete characterization); witnesses lack personal knowledge to make the comparison; *see* Def. SUF, ¶ 117, which follows.**
99. The same contaminants listed in SB 990 §2(g)—"perchlorate, heavy metals, PCBs, dioxins, volatile organic, and semivolatile organic compounds, in addition to radioactivity"—exist at numerous other sites in the State, and in higher concentrations than those	**Disputed** **Objection: Boeing's Asserted Uncontroverted Fact No. 99 lacks the proper foundation because comparisons between the amount of contaminants at the SSFL and those detected at other sites in California lacks the necessary foundation (*i.e.*, a complete characterization of the SSFL site), witnesses lack the personal knowledge to make the comparisons; see Def. SUF, ¶ 117.**

present at SSFL.	
100. Many other contaminated sites in the State, which are similar to SSFL, are even closer than SSFL to major population centers.	**Not disputed.**
101. Proximity to a population center alone does not determine a site's reasonably foreseeable land use.	**Not disputed.**
102. Many other sites in California have become contaminated as a result of similar types of historical operations and waste disposal as those that occurred at SSFL.	**Not disputed.**
103. The only reason DTSC can identify for singling out SSFL for disparate treatment is a political one.	**Disputed.** **Objection: The phrase "political" in the testimony below, which Boeing cites in support of SUF No. 103, mischaracterizes the testimony of the witnesses cited below:** • Greger Dep. [59:19] – [60:19] ("Q. Are you aware of any reason to single out SSFL for different cleanup rules that otherwise apply? … [A.] No. …

	Let me qualify that answer. On a – from a technical basis, no. Q. … Is the other basis political? A. Yes. … Q. Can you explain to us what you mean by that. … [A.] It's a site that has had very high political visibility for 10 to 20 years. Q. … Is that in part because of the activity of the Committee to Bridge the Gap? … [A.] It's – in part the answer is yes. It's due to the activists' involvement there, Committee to Bridge the Gap is one of the lead activist organizations involved."); • *Id.* At [87:24] – [88:11] (referring to "… the highly politicized nature of the site"); • Brausch Dep. [104:22] – [107:22] ("… Q. Other than the community perception issue which you identified, am I correct that you cannot identify any other reason for treating the SSFL site differently than any other site in the State? … [A.] Correct…."). **Cited below is additional testimony from the witnesses supporting defendant's objection that their testimony has been mischaracterized:** **Brausch Dep. [104:22] – [107:22]** **Q. Did either take a position with respect to whether DTSC should recommend that the Governor sign the bill or not?** A. I think both Senator's office and Dan Hirsch desired greatly for the administration to take a formal

support position, yes.

Q. Did they say anything to you about that?

A. Yes.

Q. What did they say?

A. They asked if we could and expressed their interest in and that it would be desirable for us to take an official position to which I responded, I can take no position unless I'm approved to take a position.

Q. Did they tell you why they thought it was important that the Governor sign the bill or did DTSC take a position that the Governor should sign the bill?

A. I can't recall any specific reasoning shared other than clearly an author of a bill would have a tremendous interest in seeing it pass through the process and signed by the Governor.

Q. Up until the time that the Governor signed the legislation, can you think of anything else that you did with respect to the legislation, any other communications you had, anything you did?

A. No.

Q. an you think of any reason to apply a different cleanup standard or different cleanup rules at SSFL than any other site in the State?

MR. ROBINSON: Objection; lack of foundation.

THE WITNESS: The only thing that I could offer is that because the community, the author, Dan Hirsch did not trust the process to yield the outcome, that placing some of those features which are typically left to the process in the statute were more sure.

Q. BY MR. MOSS: Anything other than that?

A. No.

Q. Is that based on the same perception issues that you identified earlier - -

A. Yeah.

Q. With respect –

A. I'm sorry. Finish the question and I'll respond.

	Q. Is that based on the same perception issues that you identified earlier that arose out of the August and September 2009 meetings, community meetings? A. Yes. **Q. But other than that community perception, I take it there is no other reason that you can identify to treat the SSFL site differently than any other site in the State; is that right?** **MR. ROBINSON: Lack of foundation.** **THE WITNESS: No. I believe the cleanup process as it's designed will yield an adequate and protective cleanup.** **Q. BY MR. MOSS: By that you mean the process that was in place before SB 990 was enacted; is that right?** A. Corrective action and Superfund processes that exist that are applied at other sites. **Q. I just want to make sure that the record is clear on this. Other than the community perception issue which you identified, am I correct that you cannot identify any other reason for treating the SSFL site differently than any other site in the State?** **MR. ROBINSON: Objection: lack of foundation.** **THE WITNESS: No.** **Q. BY MR. MOSS: No, you can't identify any; is that right?** A. Correct. **Q. That's what I was trying to clear up.** A. Correct. **Q. Can you identify any reason to conclude that the SSFL site should be cleaned up to a stricter standard than would be required under generally applicable State law?** **MR. ROBINSON: Objection; lack of foundation.** **THE WITNESS: No.**

104. If SB 990 could not be applied to all of the contamination at SSFL, it would not be possible to "sum" the risks for the entire site and to develop "cumulative risk" assessment as required by SB 990.	**Not disputed.**
105. There is no technical, scientific, or environmental basis to single out SSFL for more onerous cleanup procedures than apply to other contaminated sites in California.	**Disputed.** **Objection: Defendant objects to Statement of Fact # 105 in that it mischaracterizes the witnesses' testimony cited below – the witnesses did not testify that there is no technical, scientific or environmental basis to single out SSFL for more onerous cleanup procedures that apply to other contaminated sites in California.** • Malinowski Dep. [28:22] – [29:3] ("Q. Is there anything that you can identify about the SSFL site that poses a more significant threat to public health than other sites in the state? … [A.] I am not aware of any imminent threat that is posed by SSFL at this point based on the available information I've had."); • *Id.* At [95:21] – [96:1] ("Q. Does the chemical contamination that is present at SSFL pose a different risk to the public or the environment than the similar chemical contamination found on the

	other industrial sites in the state? … [A.] No."); • *Id.* At [96:2] – [96:11] ("Q. … Am I correct that there are also other sites in the state that contain radiological contamination? A. Yes. Q. Is there anything about the radiological contamination that is present at SSFL that poses a different risk to the public or the environment than radiological contamination present at other sites in the state of California? A. Not to the best of my knowledge, no."); • *Id.* at [136:2] – [136:17] ("Q. … [I]s there anything about either the chemical or radiological contamination at SSFL that, in your view, would justify applying a different approach to the cleanup at SSFl than at other sites in the state? … [A.] … No. Q. … Is there anything else about the site other than the chemical or radiological contamination, and putting aside SB 990 for the moment, that would, in your view, justify applying a different approach to the cleanup at SSFL than at other sites in the state? … [A.] No."); • Brausch Dep. [107:17] – [107:22] (Q. Can you identify any reason to conclude that the SSFL site should be cleaned up to a stricter standard than would be required under generally applicable State law? … A. … No.")

106. McClellan Air Force Base, roughly the same size as SSFL, is seven miles from Sacramento and is contaminated with all of the same contaminants listed in SB 990, many in higher concentrations, including TCE.	• Malinlowski Dep. [26:3] – [26:23] (McClellan Air Force Base close to major population centers); • *Id.* at [28:7] – [28:9] ("[A.] McClellan Air Force Base was the most polluted Air Force Base out of all the Air Force. It ranked the highest."); • *Id.* at [34:9] – [36:16]; • *Id.* at [101:11] – [102:12]; • *Id.* at [128:11] – [134:24] (higher concentrations of volatile organic compounds than SSFL); • *Id.* at 141:11] – [141:16]; • *Id.* at (144:6] – [148:22] ("… Q. In your view, is the McClellan Air Force Base a fairly similar site to the SSFL site in terms of the contamination that is present? A. The types of contamination, yes. … Q. There was TCE as well; is that right? A. Yes.); • Greger Dep. [68:7] [68:16]; • Bower Del. ¶¶35, 50, 53, 55, 58, 64; • Ex. 6 to Bowers Decl., *Public Health Assessment, McClellan Air Force Base, Sacramento, Sacramento, California* at 1-5 (Agency for Toxic Substances and Disease Registry 1994); • Ex. 7 to Bowers Decl., *McClellan air Force Base Administrative Record 6504* at 2-1 (EPA 2008); • Ex. 8 to Bowers Decl., *McClellan Air Force Base (Groundwater Contamination)* at 2, 3, 7 (U.S. EPA Region 9);

	• Ex. 9 to Bowers Decl., *Five Year Review; Former McClellan Air Force Base, California,* July 2009, at 3-1 (MWH Americas, Inc.); • Ex. 10 to Bowers Decl., *Proposed Plan for Soil Cleanup, McClellan AFB Parcel C-6* at 3 (EPA October 2008) **Disputed.** **Objection: Witnesses lack personal knowledge. Comparisons between the amount of contaminants at the SSFL and those detected at other sites in California lacks the necessary foundation (*i.e.*, a complete characterization of the SSFL site); see State's. SUF, ¶ 117.**
107. Lawrence Livermore National Laboratory, more than twice the size of SSFL, is 48 miles from San Francisco and is a DOE laboratory used for nuclear weapons and other research. It is contaminated with all of the same contaminants listed in SB 990. Among other things, it has had higher historical concentrations, of TCE and tritium than SSFL.	• Malinowski Dep. At [101:11] – [102:12]; • *Id.* at [163:13] – [163:24] (Lawrence Livermore close to major population centers); • *Id.* at [169:7] – [175:16] ("Q. Is the list of contaminants at the Lawrence Livermore National Laboratory similar to the list of contaminants of concern at SSFL:… A. Looking both together?... I would say they're similar, yes."); • *Id.* at [173:5] – [173:16] ("Q. [I]s there anything about [Lawrence Livermore National Laboratory] that would support taking a different approach to the cleanup than at SSFL? … [A.] No."); • *Id.* at [175:12] – [175:16] ("Q. Is it fair to say that

	the principal contaminants of concern at Lawrence Livermore National Laboratory are found in higher concentrations than the same contaminants found at SSFL? A. For those that I am aware of, yes.")' • Bowers Decl. ¶¶32, 39, 48-49, 51-53, 58, 60, 62; • Ex. 4 to Bowers Decl., *Site-Wide Record of Decision Lawrence Livermore National Laboratory Site 300* at pages 1-1, 2-1, 2-2, 2-4, 2-5, 2-6, 2-8, and 2-9, and Tables 2.5-1, 2.5-2, 2.5-3, 2.5-4, and 2.4-1 (DOE July 2008). **Disputed.** **Objection: Witnesses lack personal knowledge. Comparisons between the amount of contaminants at the SSFL and those detected at other sites in California lacks the necessary foundation (*i.e.*, a complete characterization of the SSFL site); see State's. SUF, ¶ 117.**
108. The Pratt & Whitney/UTC site is twice as large as SSFL and located 14 miles south of San Jose. It was formerly used for the manufacture and testing of rocket engines, including the development, manufacturing, and testing of solid propellant rocket	• Malinowski Dep. At [175:25] – [178:21] ("… Q. Are the principal contaminants of concern that are found at the United Technologies Corporation Pratt & Whitney site higher than the concentrations of the similar contaminants found at SSFL? A. For those that I'm aware of, yes…."); • *Id.* (Q. Can you think of any reason to apply a different cleanup process or different cleanup rules at the Pratt & Whitney United Technologies

motors and propellants. The site has many of the same contaminants as SSFL and has had higher historical concentrations of key contaminants, including TCE and perchlorate.	site than at SSFL? A. No."); • Bowers Decl. ¶¶32, 34, 48, 53, 54, 58, 65; • Ex. 1 to Bowers Decl., *Revised Human Health and Ecological Risk Assessment Work Plan* AT 2-1, 4-24 (ARCADIS Aug. 2009); • Ex. 3 to Bowers Decl., *Closure Plan – Former Open Building Facility* at 1:15 through 1-17 (ARCADIS June 2010); • Ex. 5 to Bowers Decl., Order No. R2-2004-0032 Revision to Final Site Cleanup Requirements; United Technologies Corporation at 2, 9 (California Regional Water Quality Control Board 2004) **Objection: Witnesses lack personal knowledge foundation. Comparisons between the amount of contaminants at the SSFL and those detected at other sites in California lacks the necessary foundation (*i.e.*, a complete characterization of the SSFL site); see State's SUF, ¶ 117.**
109. SB 990 will result in a substantially more burdensome, time consuming, and expensive cleanup process than that required under generally applicable law, resulting in years of delay in the cleanup	**Disputed.** **Objection: Defendant objects to Statement of Fact # 109 in that what is "required under generally applicable law" is a conclusion of law. Defendant further objects that the witnesses lack personal knowledge of how much the cleanup will cost, as the characterization of the site has not been completed. *See* State's. SUF, ¶ 117. Defendant**

schedule, and the unnecessary expenditure of hundreds of millions of additional dollars, which will be allocated between Boeing and the federal government.	**further objects that the expert witnesses cited by Boeing lacked sufficient facts upon which to base their opinion about the cost of the cleanup because the characterization of the site is incomplete.** • Whipple Decl. ¶¶22-31; • Lenox Decl. ¶¶34-36 • Bowers Decl. ¶¶71-76; • Rutherford Decl. ¶¶48-51; • Brausch Dep. [201:19] – [205:17]; • Rainey Dep. [38:23] – [39-24].
110. DTSC has made no attempt to determine whether any potential benefit SB 990's cleanup procedures might have on public health and safety would outweigh the significant potential adverse consequences.	**Not disputed.**
111. SB 990 will require a substantial amount of additional soil to be removed from the site than under generally applicable law.	**Disputed** **Objection: Defendant objects to Statement of Fact # 111 in that what is required under "generally applicable law" is a legal conclusion. Defendant further objects that the witnesses lack foundational personal knowledge of how much the cleanup will cost, as the characterization of the site**

	has not been completed. *See* State's SUF, ¶ 117. Defendant further objects that the expert witnesses cited by Boeing lacked sufficient facts upon which to base their opinion about the amount of soil to be removed because the characterization of the site is incomplete. • Bowers Decl. ¶¶74-75; • Whipple Decl. ¶¶32-34; • Brausch Dep. [286:5] – [286:24]; • Rainey Dep. [91:2] – [91:17]; • *Id.* at [108:15] – [109:13].
112. Soil removal on a scale necessary to comply with SB 990 would require numerous additional dump-truck round trips through the community, greatly increasing the risk of traffic deaths and illness from pollution by diesel particulates.	**Disputed.** **Objection: Defendant objects that the witnesses lack foundational personal knowledge of how much the cleanup will cost, as the characterization of the site has not been completed. *See* State's SUF, ¶ 117. Defendant further objects that the expert witnesses cited by Boeing lacked sufficient facts upon which to base their opinion about the amount of soil to be removed because the characterization of the site is incomplete.** • Whipple Decl. ¶¶32-34; • Bowers Decl. ¶¶77-80; • Brausch Dep. [293:15] – [294:17] ("Q. and am I

	correct that there is some risk to the public associated with additional trucking of soil from a site away from the site? A. Yes. … Q. … What is the nature of that risk? A. As I understand it, any time you have vehicular activity on a road, you have some measure of risk associated with accident rates and those sorts of risks that some to bear. Q. Also, diesel particulates? A. Sure. You have emissions from vehicles that travel on the roads."); • Rainey Dep. [91:2] – [92:23]; [107:10] – [109:10].
113. The excavation activities required to comply with SB 990 would destroy considerably more of the existing ecological habitat at SSFL than would otherwise occur.	**Disputed.** **<u>Objection</u>: Defendant objects that the witnesses lack foundational personal knowledge to testify about the quantification of ecological habitat that will be affected by SB 990's cleanup standard because it cannot be determined in the absence of a complete site characterization. *See* State's SUF, ¶ 117. Defendant further objects that the expert witnesses cited by Boeing lacked sufficient facts upon which to base their opinion about the amount of habitat that might be destroyed because the characterization of the site is incomplete.** • Bowers Decl. ¶ 74, 75.
114. The method by which	**Not disputed.**

contamination is released into the environment at a particular site has no relevance to the appropriate future land-use assumption or the amount of residual contamination that can safely remain at that site at the end of the cleanup.	

DEFENDANT'S UNCONTROVERTED FACTS	**SUPPORTING EVIDENCE**
115. Administrative Orders on Consent ("AOC's) between the Department of Toxic Substances Control and the two federal agency responsible parties, DOE and NASA, have been executed by all parties and are compliant with SB 990.	Brausch Decl. ¶ 7-8.
116. DTSC is not requiring Boeing, or any other responsible party, to perform a cleanup of radiologic or chemical contamination at SSFL to below background levels. DTSC will enter into a "cleanup-to-background" AOC with Boeing that is not substantially different from those between the State, DOE, and NASA.	Brausch Decl. ¶ 7-8

117. The nature and extent of contamination at the SSFL has not yet been fully characterized.	Exhibit 11 to A. Owens Decl., Deposition of Laura Rainey, [23:9] – [23:20]; [43:6] – [43:13]; [45:14] – [45:23].
118. The legislature has enacted other statutes targeting specific contaminated sites.	Brausch Decl.¶ 6
119. SSFL had 10 nuclear reactors, a sodium burn pit where sodium-coated radioactively contaminated objects were openly burned, a plutonium fuel fabrication facility, a uranium carbide fuel fabrication facility, and a Hot Lab used for remotely cutting up irradiated nuclear fuel.	Exhibit 1 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec. 2, subd. (b).
120. In 1959, one of the SSFL nuclear reactors experienced a partial core meltdown, releasing radioactive gases atmosphere over a period of weeks.	Exhibit 1 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec. 2, subd. (e).
121. Scientists estimate that the amount of radioactivity emitted from the 1959 meltdown could have been as much as 240 times that released from the Three Mile Island accident.	Exhibit 1 to Lesser Decl., *California Senate Committee on Environmental Quality Report* (April 16, 2007) at 4.
122. Recent studies conclude that this accident may have caused hundreds of	Exhibit 1 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec.

cancer cases in the Los Angeles Area	2, subd. (e).
123. One method for disposing of highly toxic substances consisted of workers shooting barrels of the material with a shotgun so that they would explode and burn, releasing some of their contents in the form of gases and particulates into the air. In the mid-1990s, a similar practice involving the illegal disposal by open air burning led to the death of two workers at SSFL.	Exhibit 1 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec. 2, subd. (f)
124. Large amounts of toxic chemicals were released into the soil, air, and groundwater and surface water at SSFL.	Exhibit 1 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec. 2, subd. (g)
125. Studies show that cancer rates in SSFL's surrounding communities increased the closer one got to SSFL, with the highest risk being within two miles of the site.	Exhibit 1 to Lesser Decl., *California Senate Committee on Environmental Quality Report* (April 16, 2007) at 5.
126. SB 990 was enacted to address the "piecemeal cleanup approach and the inadequate characterization and cleanup" at SSFL.	Exhibit 1 to Lesser Decl., *California Senate Committee on Environmental Quality Report* (April 16, 2007) at 3.
127. According to the proponents of SB 990, "the cleanup at the SSFL site has been marred by inconsistent	Exhibit 1 to Lesser Decl., *California Senate Committee on Environmental Quality Report* (April 16, 2007) at 7.

standards and contradictory regulatory responsibilities."	
128. DOE had commenced cleanup at SSFL, but declined to follow standards deemed protective by EPA.	Exhibit 1 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec. 2, subd. (h)
129. Although EPA declared that under the circumstances, SSFL would only be safe for day hikes, DOE insisted on an "unrestricted release" for SSFL. This would mean that "families could purchase homes built on soil contaminated with . . . radionuclides from the past meltdown and other past accidents."	Exhibit 4 to Owens Decl., *California Senate Bill 990* (Oct. 14, 2007), at Sec. 2, subd. (h); Exhibit 1 to Lesser Decl., *California Senate Committee on Environmental Quality Report* (April 16, 2007) at 2-3.
130. SB 990 cites Judge Conti's May 2, 2007, decision in the matter of *National Resources Defense Council, et al., v. the Department of Energy, et al*,, holding that DOE violated the National Environmental Policy Act and permanently enjoining DOE from transferring ownership or possession, or otherwise relinquishing control over Area IV, until completing an Environmental Impact Statement.	Exhibit 5 to Owens Decl., *California Senate Assembly Committee on Environmental Safety and Toxic Materials Hearing Report* (June 26, 2007), at 4; Exhibit 4 to Lesser Decl., *Natural Resources Defense Council, Inc. et al., v. Department of Energy, et al.,* 2007 WL 1302498 (N.D.Cal. 2007).
131. In 1962, the State of California and the former Atomic Energy Commission ("AEA") entered into an	Exhibit 2 to Lesser Decl.

written agreement in which the State was ceded "Agreement State" authority under the Atomic Energy Act.	
132. The 1962 Agreement between the State and the AEA provides that the State shall have regulatory authority over byproduct materials, source materials, and special nuclear materials in quantities not sufficient to form a critical mass.	Exhibit 2 to Lesser Decl. at 1, 2.
133. The 1962 Agreement references Section 161 of the AEA and thereby delegated to California the authority to enact rules, regulations, or orders to "protect public health or to minimize danger to life or property resulting from byproduct, source, or special nuclear material contamination.	Exhibit 2 to Lesser Decl. at 1, 2.
134. In September 2007, one of Boeing's declarant, Philip Rutherford, authored a document entitled "Radiological Release Process; Process for Release of Land and Facilities for (Radiologically) Unrestricted Use."	Exhibit 6 to Lesser Decl.
135. Mr. Rutherford's 2007 report states that "facilities that have been utilized for radiologic operations and/or	Exhibit 6 to Lesser Decl. at 1.

research are required to be remediated prior to being released for unrestricted use."	
136. Mr. Rutherford acknowledges that for Boeing-owned buildings, the State-issued Radioactive Materials License requires that the State approve remediation of such facilities before they can be released for unrestricted use.	Exhibit 6 to Lesser Decl. at 6-7.
137. SB 990's requirement to use the rural residential (agricultural) land use assumption is not inconsistent with the local zoning.	Brausch Decl., ¶ 5 ("Typically, the land use assumption is determined based on reasonably anticipated land use for the site. To determine that anticipated land use, DTSC looks to local government designations, including general plans and zoning. With respect to SSFL, according to the general plan and zoning decisions of the County of Ventura, the zoning for a majority of the site is RA - 5, which is an agricultural designation.")
138. The State Legislature has enacted other statutes targeting specific contaminated sites in California.	Brausch Decl., ¶ 6.
139. DTSC has cleaned up contaminants at other sites to background levels in situations where the calculated risk levels are below the local background concentrations for	Brausch Decl., ¶ 9.

contaminants.	

Dated:

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